

## REMARKS

### Status of Prosecution

In the non-final office action mailed by the Examiner on April 9, 2007, Claims 1-29 were pending.

In that non-final office action, the Examiner rejected claims 1-3, 6, 9-12, 15, 18-19, 24, and 27-29 under 35 U.S.C. §102(e) under U.S. 6,646,561 issued November 11, 2003 to Zur ("Zur Patent"). The Examiner also rejected claims 4, 13, 22 under 35 U.S.C. §103(a) as unpatentable for obviousness over the Zur Patent standing alone. The Examiner also rejected claims 5, 7, 8, 14, 16, 17, 23, 25 and 26 under 35 U.S.C. §103(a) as unpatentable for obviousness over the Zur Patent in view of published U.S. patent application No. U.S. 2006/0052918 to McLeod, et al. ("Published McLeod Application").

In the Reply to that office action, Applicants amended claims 1, 10, 12, 16-17, 19, 25-26, and 28-19, and cancelled claims 4-6, 13-15, and 22-24, without prejudice.

In response to the Reply filed July 6, 2007, the Examiner entered a final office action transmitted to Applicants on September 26, 2007 ("Pending Office Action").

This paper is filed in reply to the final office action.

In the "Office Action Summary" of the Pending Office Action the Examiner rejected claims 1-3, 7-12, 16-21, and 25-29 (collectively, "Pending Claims") under 35 U.S.C. §103(a) as follows:

A. Claims 7-12, 16-21, and 25-29 stand rejected as unpatentable over and in view of a combination of three (3) references, namely (i) over the Zur Patent'), (ii) in view of a newly cited reference, U.S. Patent No. 6,561,151 issued on May 13, 2003 to Wisnia, *et al.* ("Wisnia Patent"), and (iii) in further view of the Published McLeod Application (collectively, the "Three References").

B. Please note that the Examiner's' statement of rejected claims begins on page 3 of the Pending Office Action. Claims 1-3 are not included in the statement of rejected claims. As indicated, however, in the "Office Action Summary" of the Pending Office Action the Examiner rejected claims 1-3, 7-12, 16-21, and 25-29. In addition, on page 5 of the Pending Office Action claims 2 and 3 are among the claims bolded in parentheses. As that presentation is understood by

Applicants, the Examiner appears to have rejected at least claims 2-3. Finally, the Pending Office Action does not appear to indicate allowance of independent claim 1. Accordingly, Applicants reply to the Pending Office Action presuming that claims 1-3, in addition to claims 7-12, 16-21, and 25-29, stand rejected as unpatentable over and in view of a combination of the Three References.

### **Applicants' Replies and Arguments**

Applicants respectfully reply to the Pending Office Action, and requests withdrawal of the rejections for at least the following reasons:

A. As indicated above, Claims 1-3, 7-12, 16-21, and 25-29 stand rejected as unpatentable over and in view of a combination of three (3) references, namely (i) over the Zur Patent"), (ii) in view of the Wisnia Patent, and (iii) in further view of the Published McLeod Application.

In this paper, however, Applicants have amended independent claims 1, 10, 19, and 29, as well as the specification of the Application, to improve the clarity, readability, and/or understanding of the application and of the invention, while adding no new matter. The amendments delete averaging as an element of the claims. The rejected Pending Claims therefore are allowable.

B. In the Pending Office Action, the Examiner makes the following statements in support of the "obviousness" rejections in connection with the Three References:

On page 2 of the Pending Office Action the Examiner states:

[I]t would have been well known in the art to average acquired samples and use the averaged result as a reference parameter. Averaging is well known in mathematics to remove small variations between a set of numbers, and in signal processing was a well-known means of filtering signals. In response to Applicant's challenge of the obviousness of averaging acquired signals, the Examiner has further applied as support that this means was well-known in the art with the teachings of the reference Wisnia. Wisnia is applied to suggest that it was well-known to one of ordinary skill in the art to average detected signals and specifically when acquiring battery parameters. (Emphasis added.)

As indicated, Applicants are not claiming averaging in this Application.

C. On page 3 of the Pending Office Action the Examiner states in the last 9 lines, and continuing on page 4, the first 7 lines, that the Zur Patent does not disclose averaging, but asserts that “[t]he teachings of Wisnia suggests that the averaging of samples with filtering was a well-known means of removing noise from samples. However, the argument in support of the Examiner’s rejections for obviousness based on the combination of the Zur Patent and the Wisnia Patent fails to make out a *prima facie* argument for obviousness under 35 U.S.C. §103(a) for at least the following reasons:

1. The Examiner points to no statement in the Application suggesting that any step or apparatus of the Application under examination includes filtering for any purpose.
2. The Examiner points to no statement in the Application suggesting that any step or apparatus of the Application under examination seeks to remove noise from samples.

Accordingly, the attempted combination of the Zur Patent and the Wisnia Patent fail to create a *prima facie* case of obviousness for at least the following reasons:

a) On April 30, 2007 the U.S. Supreme Court issued its opinion in *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 167 L.Ed. 2d 705 (2007) (“KSR Opinion”). On May 3, 2007 the Commissioner of Patents sent a memorandum to the Technology Center Directors (“Memorandum”) that the KSR Opinion (a) reaffirmed the *Graham* factors, (b) did not reject the use of “teaching, suggestion, or motivation” (“TSM Test”) as a factor in the obviousness analysis, but merely rejected a rigid application of the TSM Test, and (c) reaffirmed the need to make explicit reasons that would have prompted a person of ordinary skill in the art to combine the prior art elements in the manner suggested by an Examiner.

b) The Examiner has offered no explicit reasons why a person of ordinary skill in the art would seek to combine the references as suggested by the Examiner. Accordingly, Applicants

submit that a *prima facie* case for obviousness does not arise from a combination of the references cited by the Examiner.

Nothing identified by the Examiner in the Zur Patent or in the Wisnia Patent supports a *prima facie* case of obviousness based on the standards of MPEP §706.02(j). Specifically, the Examiner has not shown explicit the reasons that would have prompted a person of ordinary skill in the art to combine the prior art elements in the manner suggested by an Examiner.

As also provided in MPEP §2143.01, the “mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.”

Further, references cannot be modified or combined if their function is destroyed. See MPEP §2143.01. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. Clearly, because nothing in the Application is concerned with filtering for any purpose, or with removing noise from samples, the Examiner’s implicit argument that a person skilled in the art would seek to overcome the omission of averaging from the Zur Patent by combining the Zur Patent and Wisnia Patent. As will be demonstrated below, such an attempted combination is merely hindsight, and fails to meet any of the tests of the KSR Opinion from the U.S. Supreme Court.

Combining either reference with the other would necessitate a change in the principle of operation of either such other reference. The example provided in MPEP §2143.01 clearly supports Applicants’ position. In that example, the reference required rigidity for operation, whereas the claimed invention required resiliency. In that case, the Court reversed the rejection stating that the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.” The same situation clearly applies to the references cited by the Examiner. Thus, it is respectfully submitted that modifying either of the references in view of the other is improper as provided in MPEP §2143.01.

D. On pages 4-5 of the Pending Office Action the Examiner also asserts an obviousness argument in connection with a combination of the Zur Patent and the Published McLeod Application. The elements of the Examiner's arguments are that:

[I]t would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Zur et al. with the teachings of McLeod et al. because as McLeod et al. suggests, it is critical for proper maintenance for the battery characteristics, recharge scheduling, etc. to monitor the conditions of the vehicle batteries, and for use with a fleet of vehicles individual manual diagnostics is too time consuming. McLeod suggests it would have been obvious...to increase the efficiency and cost-effectiveness of monitoring a fleet of vehicles, to transmit the parameters and/or alarms to a remote station where scheduling of maintenance can be centralized. Neither reference explicitly discloses downloading reference parameters from a remote station to the diagnostic device. However, it would have been obvious to one of ordinary skill in view of the teachings of McLeod et al. (sic, omitted transitional word) including a bi-directional communication between a remote station and the on-board diagnostic device to download reference parameters to the vehicle rather than manually entering the reference parameters. This was well known in the art to allow for updates in computer software. (Emphasis added for analytical purposes.)

Once again, the Examiner has made a number of inductive leaps not supported either by the reference sought to be combined, or by the KSR Opinion. More specifically:

1. If neither reference explicitly discloses downloading reference parameters from a remote station to the diagnostic device, the Examiner's attempted combination fails to establish a prima facie case of obviousness.

2. The attempted combination of references again is prohibited by MPEP §2143.01 as discussed in paragraph C. above. The "mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." Further, references cannot be modified or combined if their function is destroyed. See MPEP §2143.01. If the proposed modification or combination of the prior art

would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.

3. To merely make a further unsupported inductive argument (“However, it would have been obvious to one of ordinary skill...”) does not cure the problem. The Examiner’s argument clearly is hindsight.

4. The Examiner asserts that it was well known “in the art” (but does not state which art in which field of technology) to download reference parameters because it was well known to download computer software updates (emphasis added). Again, there is no relevancy of those unconnected arguments to the Application under examination, or to the attempted combination of references.

E. There is no suggestion, teaching, or motivation to combine the references. As stated in the MPEP §706.02(j), and upheld by the KSR Opinion, to establish a *prima facie* case of obviousness, three basic criteria must be satisfied: (1) a suggestion or motivation to modify the cited reference or to combine the teachings in the cited references; (2) a reasonable expectation of success; and (3) the cited references must teach or suggest all the claim limitations. The cited reference “must expressly or impliedly suggest the claimed invention...”

As indicated, the KSR Opinion (a) reaffirmed the *Graham* factors, (b) did not reject the use of “teaching, suggestion, or motivation” (“TSM Test”) as a factor in the obviousness analysis, but merely rejected a rigid application of the TSM Test, and (c) reaffirmed the need to make explicit reasons that would have prompted a person of ordinary skill in the art to combine the prior art elements in the manner suggested by an Examiner.

The Examiner has not offered explicit reasons why a person of ordinary skill in the art would seek to combine the references as suggested by the Examiner. Accordingly, Applicants submit that a *prima facie* case for obviousness does not arise from any combination of references cited by the Examiner.

Nothing identified by the Examiner in the Three References supports a *prima facie* case of obviousness based on the standards of MPEP §706.02(j). Specifically, the Examiner has not

shown explicit reasons that would have prompted a person of ordinary skill in the art to combine the prior art elements in the manner suggested by an Examiner.

G. There is no support for obviousness under the “simple substitution” test of the KSR Opinion. In its KSR opinion the Supreme Court also stated that “when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one” and “if a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability.” Having advanced that observation, however, the Court conceded that using those concepts “may be more difficult in other cases than [in KSR] because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement.” See KSR, 127 S.Ct. at 1735.

The Supreme Court’s recognition of the problem is consistent with the rule that references may not be modified or combined if their function is destroyed. See MPEP §2143.01. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.

Accordingly, the assertions of obviousness in this case must also be withdrawn because the claimed subject matter in the Application involves far more than the simple substitution of one known element for another.

In addition, *prima facie* support for obviousness has not been established because the claimed subject matter in the Application clearly is not the mere application of a known technique to prior art ready for improvement. .

H. There is no support for obviousness under the “reason to combine” test of the KSR Opinion. The Supreme Court also stated in KSR that “often it will be necessary... to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent [application] at issue.” (KSR, emphasis added.)

The Examiner has advanced no apparent reason to combine the elements in the fashion claimed by Applicants. See MPEP §2131.

I. There is no support for obviousness under the common sense test of the KSR Opinion. The Supreme Court also stated in KSR that common sense teaches that familiar items “may have obvious uses beyond their primary purpose.” Although true that common sense is the most uncommon of senses, it is evident that the fact that items may have obvious uses beyond their primary purpose does not mean that a person skilled in the art would be motivated to combine elements in the manner of the Application.

“Most if not all inventions arise from a combination of old elements...Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See In re Kotzab, 217 F.3d 1365, 55 USPQ2d 1313 (Fed. Cir. 2000). Or, as restated by the KSR Court, “inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense [presumably common sense], is already known.” See KSR at 15.

Thus, the common sense urged by *Kotzab* and *KSR* indicate that the attempted combination of references by the Examiner does not lead to a conclusion of obviousness.

J. It should be noted again that, as expressly stated in the Zur Patent, the method of the Zur Patent claims the step of “sensing at least one engine characteristic selected from the group consisting of engine noise and engine vibration....” see Zur Patent, column 39, subparagraph element (f), lines 14-16. The present invention, however, compares battery characteristics to stored reference parameters derived from prior starting events that include engine temperature, ambient temperature, battery type, and vehicle type, rather than engine noise and engine vibration.

Furthermore, the Zur Patent does not disclose or claim the features and capabilities claimed in the present invention to “download” reference parameters from a remote station. One desirable feature of the present invention, among others, is that the detection system disclosed and claimed in the Application communicates through a satellite-based wireless communication channel to a diagnostic station. See Application, page 4, paragraph [1020].



Thus, unlike the features and capabilities of the Zur Patent, the present invention is operable through a mobile communication terminal for communicating with one or more remote locations using a satellite-based wireless communication system. The mobile communications terminal resides on board a vehicle so as to be easily accessible by the vehicle operator. See Application, page 5, paragraph [1021]. The communications system provides two-way communication between a vehicle and a remote diagnostic station. The vehicle also may comprise other wireless systems that could be used in addition to, or in the alternative to, a satellite system. See Application, page 5, [1022]. None of the features of a wireless communication system over which data concerning a battery may be received, transmitted and stored is disclosed or claimed in the Zur Patent in combination with the cited auxiliary references.

#### Conclusion

In view of the foregoing, Applicants respectfully request withdrawal of the rejections of the Pending Claims.

#### REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: February 21, 2008

By:

  
Richard A. Bachand  
Reg. No. 25,107

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, California 92121  
Telephone: (858) 651-4125  
Facsimile: (858) 658-2502